

ESV Workstation

Kodak Printer User's Manual

In-s *leaf/initial*

In-s 650443-1pd printer

EVANS & SUTHERLAND COMPUTER CORPORATION
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Introduction

The BSD **lpr** command can be set up to use a printer which is located on a remote host. By using this capability, one printer can easily be shared by many machines.

To set up the printer, several files have to be changed. The most important is the **/etc/printcap** file. There is already an entry for the KODAK XL 7700 Digital Continuous Tone Printer. All that is needed is for the system administrator to uncomment it. Once the printer software has been installed and the **printcap** file updated the printer can be used by the local machine.

To use the machine from a remote ESV Workstation, two things have to be done. First, the remote machine's name must be put into the **/etc/hosts.equiv** file on the machine with the printer. Second, the remote machine's **/etc/printcap** file must have a remote printer entry added for the BSD line printer. There is an example entry for the line printer or postscript printer that can be modified for use. Following is an example entry for a remote KODAK XL 7700 Printer:

```
cp|kodak|Kodak Color Printer:\n:lp=:rm=machinename:sd=/usr/spool/lp:\n:lf=/usr/adm/kodak-log:af=/usr/adm/kodak.acct:
```

All that remains is to make sure that the BSD printer daemon is running on each machine. The BSD **lpd** command is used to enable the printer daemon. Refer to the manual page for more information.

↓
cp|kodak|Kodak Color Printer:\n:lp = /dev/null :sd = /usr/spool/lp:\n:lf = /usr/adm/kodak-log :af = /usr/adm/kodak.acct
:sh:of = /usr/etc/kodakdriver

X Interface

Under the X Window System, **xwd** and **xkpr** are used to grab the image of a window and print it on the KODAK XL 7700 Printer. **xwd** allows you to point the cursor and click on the window of choice. **xwd** will then grab the visible contents of the window, format it into a special form, and send it to **stdout** (which can be sent to a file using UNIX redirection).

xkpr takes the output of **xwd** and turns it into a format suitable for **lpr** to accept and print. **xkpr** is an X-to-printer translation program. It is provided by MIT and has been modified to know about the special format for the KODAK XL 7700 Printer. Following is a sample command line:

```
xwd | xkpr [options] | lpr -P kodak
```

This is done in UNIX fashion that requires user input and interaction. "Print screen" or "print window" buttons do not exist on the system. Users can add these features by using Motif and some customization files.

For custom applications you will have to use the X interface to dump an X window to the printer. Of course, it is always possible for the application to execute those commands on behalf of the user, and this would produce a "print window button" for that application.

CDRS Interface

A print window interface function is available for CDRS applications. It performs the same function as **xwd** above, but it doesn't require user interaction. This function allows CDRS to specify which window it wants to print and what part of that window to print on the KODAK XL 7700 Printer.

xkpr

Name

xkpr - print an ESV X window dump

Synopsis

```
xkpr [ -device dev ] [ -scale scale ] [ -height inches ] [ -width inches ]  
[ -left inches ] [ -top inches ] [ -header string ] [ -trailer string ]  
[ -landscape ] [ -portrait ] [ -plane number ] [ -gray ] [ -rv ] [ -compact ]  
[ -output filename ] [ -append filename ] [ -noff ] [ -split n ] [ -psflg ]  
[ -density dpi ] [ -cutoff level ] [ -noposition ] [ -gamma correction ]  
[ -render algorithm ] [ -slide ] [ filename ]
```

Description

xkpr takes as input a window dump file produced by **xwd(1)** and formats it for output on the KODAK XL7700 Digital Continuous Tone Printer. If no file argument is given, the standard input is used. By default, **xkpr** prints the largest possible representation of the window on the output page. Options allow the user to add headers and trailers, specify margins, adjust the scale and orientation, and append multiple window dumps to a single output file. Output is to standard output unless **-output** is specified.

Command Options

-device *dev* Specifies the device on which the file will be printed.
The printer currently supported is:

kodak KODAK XL 7700
Digital Continuous Tone Printer

-scale *scale* Affects the size of the window on the page. The KODAK printer is able to translate each bit in a window pixel map into a grid of a specified size. For example each bit might translate into a 3x3 grid. This would be specified by **-scale 3**. By default a window is printed with the lowest density that will fit onto the page for the specified orientation.

-height *inches* Specifies the maximum height of the page in inches.

-width *inches* Specifies the maximum width of the page in inches.

-left *inches* Specifies the left margin in inches. Fractions are allowed. By default the window is centered on the page.

-top *inches* Specifies the top margin for the picture in inches. Fractions are allowed.

-header *string* Specifies a header string to be printed above the window.

-trailer <i>string</i>	Specifies a trailer string to be printed below the window.
-landscape	Forces the window to be printed in landscape mode. By default a window is printed such that its longest side follows the long side of the paper.
-portrait	Forces the window to be printed in portrait mode. By default a window is printed such that its longest side follows the long side of the paper.
-plane <i>number</i>	This has no effect. Included for compatibility with xpr .
-gray 2 3 4	This has no effect. Included for compatibility with xpr .
-rv	This has no effect. Included for compatibility with xpr .
-compact	This has no effect. Included for compatibility with xpr .
-output <i>filename</i>	Specifies an output filename. If this option is not specified, standard output is used.
-append <i>filename</i>	Specifies a filename previously produced by xkpr to which the window is to be appended.
-noff	When specified in conjunction with -append , the current window will appear on the same page as the previous window.
-split <i>n</i>	This has no effect. Included for compatibility with xpr .
-psfig	This has no effect. Included for compatibility with xpr .
-density <i>dpi</i>	Indicates the dot-per-inch density to be used by the KODAK printer.
-cutoff <i>level</i>	This has no effect. Included for compatibility with xpr .
-noposition	This has no effect. Included for compatibility with xpr .
-gamma <i>correction</i>	This changes the intensity of the colors printed by the KODAK printer. The correction is a floating point value in the range 0.00 to 3.00. Consult the operator's manual to determine the correct value for a specific printer.
-render <i>algorithm</i>	This allows the KODAK printer to vary edge enhancement. Consult the operator's manual to determine which algorithms are available.
-slide	This has no effect. Included for compatibility with xpr .
filename	Specifies the filename of the image to be printed.

See Also

xwd(1), xwud(1), X(1)

Limitations

The current version of **xkpr** can only print out X windows that are 32-bit true color visuals or 32-bit direct color visuals.

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